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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/765,885	01/29/2004	Nobukazu Suzuki	03500.017861	2302
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FITZPATRICK CELLA HARPER & SCINTO			ZHU, RICHARD Z	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)
	10/765,885	SUZUKI, NOBUKAZU
	Examiner	Art Unit
	Richard Z. Zhu	2625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on _____.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-14 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 29 January 2004 is/are: a) accepted or b) objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.	6) <input type="checkbox"/> Other: _____.

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority based on application JP 2003-024418 filed in Japanese Patent Office on January 31st 2003. Certified copies of said Japanese Application had been received.

Claim Rejections - 35 USC § 101

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

The USPTO "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility" (Official Gazette notice of 22 November 2005), Annex IV, reads as follows:

Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." In this context, "functional descriptive material" consists of data structures and computer programs which impart functionality when employed as a computer component. (The definition of "data structure" is "a physical or logical relationship among data elements, designed to support specific data manipulation functions." The New IEEE Standard Dictionary of Electrical and Electronics Terms 308 (5th ed. 1993).) "Nonfunctional descriptive material" includes but is not limited to music, literary works and a compilation or mere arrangement of data.

When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994) (claim to data structure stored on a computer readable medium that increases computer efficiency held statutory) and *Warmerdam*, 33 F.3d at 1360-61, 31 USPQ2d at 1759 (claim to computer having a specific data structure stored in memory held statutory product-by-process claim) with *Warmerdam*, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory).

In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. See *Lowry*, 32 F.3d at 1583-84, 32 USPQ2d at 1035.

Claim 13 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter as follows. Claim 13 defines a computer program embodying functional descriptive material. However, the claim does not define a computer-readable medium or memory and is thus non-statutory for that reason (i.e., "When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized" – Guidelines Annex IV). That is, the scope of the presently claimed a computer program can range from paper on which the program is written, to a program simply contemplated and memorized by a person. The examiner suggests amending the claim to embody the program on "computer-readable medium" or equivalent in order to make the claim statutory. Any amendment to the claim should be commensurate with its corresponding disclosure. Please combine Claims 13 and 14.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C 112 that form the basis for the rejections under this section made in this office action:

[2nd Paragraph] The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1 and 4 are rejected 35 USC 112 2nd Paragraph as failing to particularly point out and distinctly claiming the invention.

Regarding Claim 1, said claim recites “a placement orientation” which is interpreted as the orientation detected when the image is initially captured. **Regarding Claim 4**, said claim recites “an orientation as read in said image reading step without rotating the image”. Does “placement orientation” of Claim 1 and “an orientation as read in said image reading step without rotating the image” of Claim 4 the same? Or does the applicant accord each term with different meaning? Please clarify the subject matter. For examination purpose, “placement orientation” of Claim 1 and “an orientation as read in said image reading step without rotating the image” of Claim 4 will be treat as equivalent.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless —

- (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- (e) the invention was described in — (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for the purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-7 and 11-14 are rejected under 35 USC 102 (b) as being anticipated by ***Dow et al.*** (***US 2001/0009428 A1***).

Dow et al. (US 6784904 B2) is the issued patent of ***Dow et al. (US 2001/0009428 A1)***; because of the format being employed in the patent version, in columns and rows, it is a matter of convenience to the examiner and the applicant to refer to ***Dow et al. (US 6784904 B2)*** for the purpose of particularly pointing out the disclosure of ***Dow et al. (US 2001/0009428 A1)*** in regard to the subject matters being claimed.

Regarding Claim 1, ***Dow*** discloses a method of reading an original placed on an original support and displaying it (Fig 1A and see Col 5, Rows 27-34, liquid crystal display), comprising:

an image reading step of reading (Fig 2, Capture Page Module 78 and see Col 7, Rows 6-7) an image of the original placed on the original support to generate an image signal

(Col 7, Rows 4-7, conversion to a suitable format for storage requires the generation of an image signal of the original that is scanned);

a placement orientation detection step (Fig 2, Thumbnail Page View Module 82 and see Col 7, Rows 7-10) of detecting placement orientation of said original based on the image signal generated in said image reading step (Col 7, Rows 7-10 and 53-63, the default display constitute images of the original orientation the scanned original is initially in.

The mere act of displaying the image in an original orientation and the fact that the user can rotate the orientation by 90° require a placement orientation detection step in order for the device to properly perform the steps as disclosed in the cited portion of the reference);

an image signal rotation step of rotating (Fig 1A, Rotation Button 32 and see Col 7, Rows 5-13 and 53-63), when the placement orientation of said original detected in said placement orientation detection step is different from a predetermined orientation (Col 7, Rows 53-58, “default state” is the state in which the display generates and displays an image in an original orientation, or the placement orientation), said image signal to said predetermined orientation (the user change the default state to rotate state which rotates the image by 90° which is a predetermined orientation different from the placement orientation); and

a read image signal display step (Fig 1A, Display 24 and Col 7, Rows 5-10) of displaying the read image signal in an orientation aligned with a predetermined orientation (Col 7, Rows 53-63, the rotated image is display onto the LCD).

Regarding Claim 2, *Dow* discloses a method of displaying a read image signal further comprising a display orientation setting step (Fig 1A, Rotation Button 32) of setting said predetermined orientation (Col 7, Rows 60-63).

Regarding Claim 3, *Dow* discloses a method of displaying a read image signal further comprising a second image signal rotation step of rotating said image signal by a predetermined angle (Col 7, Rows 53-63, activation of rotation button will rotate said image signal by a predetermined angle) irrespective of the placement orientation detected in said placement orientation detection step (Col 7, Rows 53-57, the orientation detected in the default state is the placement orientation), and a second display orientation setting step of setting whether the image is to be displayed in the orientation aligned with said predetermined orientation or the image that has been rotated by said second image signal rotation step is to be displayed (If the user chooses to activate rotation button 32, the image that is rotated by 90° relative to the placement orientation will be displayed by display 24).

Regarding Claim 4, *Dow* discloses a method of displaying a read image signal wherein said second display orientation setting step can optionally set to display the image in an orientation as read in said image reading step without rotating the image (Col 7, Rows 53-63, the user chooses not to activate the rotate button 32, the image will be displayed in an orientation that is originally detected when the image is initially captured).

Regarding Claim 5, *Dow* discloses a method of displaying a read image signal wherein said second image signal rotation step further includes upon rotating the image signal by the predetermined angle, correcting its inclination with respect to a vertical or

horizontal direction (**Col 7, Rows 53-63**, if the user chooses to activate the rotate button **32**, the image will be displayed in an orientation that is rotated by a predetermined angle relative to the orientation originally detected when the image is initially captured. This is accomplished by correcting the inclination of the image signal with respect to a vertical or horizontal direction).

Regarding Claim 6, *Dow* discloses a method of displaying a read image signal wherein in said image reading step, a plurality of originals placed on the original support are read (scanning a plurality of original is determine by the user in accordance to user defined necessity) and the other steps are performed on an image signal obtained from each of the originals individually (**Col 7, Row 63 – Col 8, Row 6**, other steps includes magnifying, capture, send, delete, attach, detach and etc).

Regarding Claim 7, *Dow* discloses a method of displaying a read image signal wherein in said image signal display step, image signals obtained from said plurality of originals are displayed in a thumbnail display form (**Fig 2, Thumbnail View Module 82** and see **Col 7, Rows 7-8**).

Regarding the Method of Claim 11 and the System of Claim 12, *Dow* discloses a system (**Fig 1 A-D**) for displaying image information, wherein when image information of an original that is different in its horizontal length and vertical length placed on an original support is read by an image reading apparatus (**Fig 8C and 8F**, the image captured is different in its horizontal length and vertical length) and said read image is displayed on a display apparatus in a thumbnail display form (**Fig 2, Thumbnail View Module 82** and see **Col 7, Rows 7-8**), placement orientation of said original placed on said original support is detected

(Col 7, Rows 7-10 and 53-63, the default display constitute images of the original orientation the scanned original is initially in. The mere act of displaying the image in an original orientation and the fact that the user can rotate the orientation by 90° require a placement orientation detection step in order for the device to properly perform the steps as disclosed in the cited portion of the reference) and said image information is displayed in a state in which a horizontal or vertical direction of the image information of said original is aligned in a predetermined orientation irrespective of the detected placement orientation of said original (Col 7, Rows 53-63, the user chooses to rotate the image by a predetermined angle to change its orientation, the image information is displayed in a state in which a horizontal or vertical direction of the image information of said original is aligned in a predetermined orientation irrespective of the detected placement orientation of said original).

Regarding the computer program implemented on a computer readable medium of Claims 13 and 14, Dow discloses a computer program stored in memory to execute the process of the scanner (Fig 2 and see Col 6, Rows 5-19).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 8 is rejected under 35 USC 103 (a) over the combined teachings of *Dow et al. (US 2001/0009428 A1)* and *Ichihara et al. (US 5198853 B1)*.

Regarding Claim 8, *Dow* discloses the subject matter set forth in Claim 1.

Dow does not explicitly disclose a method of displaying a read image signal wherein in said placement orientation detection step, the placement orientation is detected based on comparison of a vertical size and a horizontal size of the image signal.

Ichihara discloses a method detecting placement orientation based on comparison of a vertical size and a horizontal size of the image signal (Fig 6 and see Col 3, Rows 21-38.

Judgment means for judging document size, and/or placement orientation, base on length and width.).

Dow and *Ichihara* are in the field of scanners.

It would've been obvious to one of ordinary skill in the art at the time of the invention to explicitly adapt the program of *Dow* to detect placement orientation base on vertical size and horizontal size of the scanned image as suggested by *Ichihara*. The motivation would've been to provide a constitution that "wherein image signals are integrated both in the main scanning direction and in the auxiliary scanning direction, noise components caused by copy soil existing on the peripheral area of a document are eliminated and thereby it is possible to

detect the document size based on the image data free from noise components" (*Ichihara, Col 4, Rows 36-42*).

Therefore, it would've been obvious to combine *Dow* and *Ichihara* to obtain the invention set forth in Claim 8.

9. Claims 9-10 are rejected under 35 USC 103 (a) over the combined teachings of *Dow et al. (US 2001/0009428 A1)* and *Miyata et al. (US 4825250 A)*.

Regarding Claim 9, *Dow* discloses the subject matter set forth in Claim 1.

Dow does not explicitly disclose an image area of the original placed on the original support is cut out to generate the image signal.

Miyata discloses an image area of the original placed on the original support is cut out to generate the image signal (Fig 12 and 14 and see Abstract).

Dow and *Miyata* are in the field of scanners.

It would've been obvious to one of ordinary skill in the art at the time of the invention to reprogram the scanner of *Dow* with parameter to automatically generate a masking function and cut out an image area of the original. The motivation would've been to "to provide an image forming apparatus which can automatically erase the unnecessary portions of a plurality of images set on the original plate and then automatically perform overlay of those image" (*Miyata, Col 2, Rows 32-37*)

Therefore, it would've been obvious to combine *Dow* and *Miyata* to obtain the invention set forth in Claim 9.

Regarding Claim 10, *Miyata* discloses an effective image area of the original in the form of a film placed on the original support is cut out to generate the image signal.

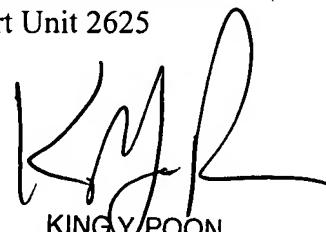
Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: US 4897737 A, US 5047843 A, US 5313311 A, US 7065716 B1, and US 7145699 B2 discloses image forming apparatus that allow user to optionally activate means for rotating image of an original placement orientation to a predetermined orientation.
11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to King Y. Poon whose telephone number is 571-272-7440 and Richard Z. Zhu whose telephone number is 571-270-1587. The examiners can normally be reached on M-F, 8:00 - 4:30.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

RZ²
08/29/2007

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